This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently amended) A system for injecting catalyst and/or additive into a fluidized catalytic cracking unit, comprising:

a dust collector adapted to be in fluid communication with at least one storage bin holding one of the catalyst and/or additives;

a vacuum producer in fluid communication with the dust collector so that the vacuum producer generates a vacuum within the dust collector that draws catalyst and/or additive into the dust collector;

a transfer pot in fluid communication with the dust collector for receiving ~~the~~ catalyst and/or additive from the dust collector, the transfer pot adapted to be ~~being~~ in fluid communication with the fluidized catalytic cracking unit and with a source of pressurized air~~, the transfer pot being capable of being pressurized so that the catalyst and/or additive is transferred to the fluidized catalytic cracking unit in response to a pressure differential between the transfer pot and the fluidized catalytic cracking unit; and~~

means for monitoring pressure in the transfer pot; and

a plurality of load cells for measuring a weight of the dust collector, the transfer pot, and any catalyst and/or additive drawn into the dust collector;

the transfer pot being capable of being pressurized so that the catalyst and/or additive can be transferred to the fluidized catalytic cracking unit in response to a pressure differential between the transfer pot and the fluidized catalytic cracking unit.

2. (currently amended) The system of claim 1, further comprising at least one storage bin holding catalyst or additive, and a hose coupled to the dust collector and the storage bin so that the dust collector and the storage bin are in fluid communication by way of the hose.

3. (original) The system of claim 2, further comprising a first valve coupled to the hose for isolating the dust collector from the storage bin on a selective basis.

4. (original) The system of claim 1, wherein the dust collector comprises a filter in fluid communication with the vacuum producer so that the filter collects dust from within the dust collector.

5. (original) The system of claim 1, further comprising a volume chamber and moisture trap for drying air supplied by the source of pressurized air.

6. (cancelled)

7. (previously presented) The system of claim 1 further comprising a cabinet for housing the dust collector and the transfer pot, wherein the dust collector and the transfer pot are mounted on a plurality of legs, each of the legs is secured to a common plate, the plate is mounted on the load cells, and the load cells are mounted on a base of the cabinet.

8. (original) The system of claim 1, wherein:

the dust collector comprises a substantially cylindrical upper portion and an adjoining, substantially conical lower portion; and

the transfer pot comprises a substantially cylindrical upper portion adjoining the lower portion of the dust collector, and substantially conical lower portion adjoining the upper portion of the transfer pot.

9. (original) The system of claim 8, wherein the lower portion of the dust collector has an opening formed therein for permitting the one of the catalyst and/or additives to flow from the dust collector to the transfer pot.

10. (original) The system of claim 9, further comprising a valve for covering the opening on a selective basis, the valve having a plug movable between an upper and a lower position in response to impingement of the pressurized air thereon.

11. (original) The system of claim 8, wherein the lower portion of the transfer pot has an opening formed therein for permitting the one of the catalyst and/or additives to flow from the transfer pot to the fluidized catalytic cracking unit.

12. (currently amended) The system of claim 1, where the vacuum producer is adapted to be in fluid communication with the source of pressurized air, and the system further comprises:

a first valve for isolating the vacuum producer from the source of pressurized air on a selective basis;

a second valve for isolating the transfer pot from the source of pressurized air on a selective basis;

a third valve for isolating the transfer pot from the fluidized catalytic cracking unit on a selective basis;

a fourth valve for isolating the dust collector from the storage bin on a selective basis; and

a controller electrically coupled to the load cells and respective actuators of the first, second, third, and fourth valves for controlling the operation of the first, second, third, and fourth valves.

13. (currently amended) The system of claim 12, wherein the controller is capable of :

~~generates~~ generating a first control input to cause the first valve to open;

~~generates~~ generating a second and a third control input that cause the respective first and the fourth valves to close after a predetermined amount of the one of the catalyst and/or additives has been drawn into the dust collector;

~~generates~~ generating a fourth control input that causes the second valve to open to pressurize the transfer pot;

~~generates~~ generating a fifth control input that causes the second valve to close after a pressure differential between the transfer pot and a regenerator of the fluidized catalytic cracking unit reaches a predetermined value; and

~~generates~~ generating a sixth control input that causes the third valve to open.

14. (currently amended) The system of claim 2~~, further~~ comprising:

a second storage bin;

~~another of the hoses~~ a second hose coupled to the dust collector and ~~another of~~ the second storage bin~~s~~ so that the dust collector and the ~~another of the~~ second storage bin~~s~~ are in fluid communication by way of the ~~another of the~~ hoses; and

a manifold coupled in fluid communication with the dust collector and the hoses for the first and second bins for placing the hoses in fluid communication with the dust collector on a selective basis.

15. (cancelled)

16. (currently amended) The system of claim ~~1~~ 2, wherein the at least one storage bin and the dust collector are non-adjoining.

17. (original) The system of claim 1, wherein the dust collector adjoins the transfer pot.

18. (Currently Amended) A system for storing and loading catalyst and/or additives into a fluidized catalytic cracking unit, comprising (1) ~~a~~ at least one storage bin for storing ~~at least one of the~~ catalyst ~~and~~/or additives ~~at a first location~~, (2) a loading unit positioned in a ~~second~~ location remote from the location of the at least one storage bin, the loading unit adapted to be ~~being~~ in fluid communication with the storage bin and the fluidized catalytic cracking unit on a selective basis, and the system comprising means for monitoring pressure within the loading unit, and (3) a plurality of load cells for measuring a weight of the loading unit and any catalyst and/or additive in the loading unit, wherein the loading unit is capable of being evacuated so that a resulting vacuum within the loading unit draws the at least one of the catalyst and/or additive~~s~~ from the storage bin, and the loading unit is capable of being pressurized so that ~~the least one of~~ the catalyst and/or additive~~s is~~ can be transferred from the loading unit to the fluidized catalytic cracking unit in response to a pressure differential between the loading unit and the fluidized catalytic cracking unit.

19. (original) The system of claim 18, wherein the loading unit comprises a dust collector and a transfer pot.

20. (previously presented) The system of claim 19, further comprising a vacuum producer for evacuating the loading unit.

21. (original) The system of claim 20, wherein the dust collector comprises a filter in fluid communication with the vacuum producer for collecting dust generated by transfer of the at least one of the catalyst and/or additives from the storage bin to the dust collector.

22. (cancelled)

23. (original) The system of claim 18, further comprising a cabinet for housing the loading unit, wherein the loading unit is mounted on a plurality of legs, each of the legs is

secured to a common plate, the plate is mounted on the load cells, and the load cells are mounted on a base of the cabinet.

24. (original) The system of claim 19, wherein:

the dust collector comprises a substantially cylindrical upper portion and an adjoining, substantially conical lower portion; and

the transfer pot comprises a substantially cylindrical upper portion adjoining the lower portion of the dust collector, and substantially conical lower portion adjoining the upper portion of the transfer pot.

25. (original) The system of claim 24, wherein the lower portion of the dust collector has an opening formed therein for permitting the one of the catalyst and/or additives to flow from the dust collector to the transfer pot as the at least one of the catalyst and/or additives is drawn into the dust collector from the storage bin, and the system further comprises a valve for covering the opening on a selective basis, the valve having a plug movable between an upper and a lower position in response to impingement of pressurized air thereon.

26. (original) The system of claim 24, wherein the lower portion of the transfer pot has an opening formed therein for permitting the one of the catalyst and/or additives to flow from the transfer pot to the fluidized catalytic cracking unit.

27. (cancelled)

28. (currently amended) The system of claim 18, wherein the ~~second location~~ loading unit is located no more than approximately twenty feet from the ~~first location~~ storage bin.

29. (currently amended) The system of claim 18 or 19~~, wherein the system comprise~~ comprising at least two ~~of the~~ storage bins, wherein each bin is in fluid communication with the loading unit and is at a location remote from the loading unit.

30. (original) The system of claim 29, wherein the loading unit further comprises a manifold for placing the loading unit in fluid communication with the at least two of the storage bins on a selective basis.

31. (original) The system of claim 19, wherein the dust collector adjoins the transfer pot.

32. (currently amended) A system for loading catalyst and/or additives into a fluidized catalytic cracking unit, comprising:

a first bin for storing a first of the catalyst and/or additives;

a second bin for storing a second of the catalyst and/or additives;

a loading unit in fluid communication with the first and second bins and adapted to be in fluid communication with the fluidized catalytic cracking unit wherein the loading unit is capable of maintaining a vacuum so that the first and/or second of the catalyst and/or additives can be drawn into the loading unit from the respective first and second bins by the vacuum, and the loading unit is capable of being pressurized so that the first and/or second of the catalyst and/or additives can be injected into the fluidized catalytic cracking unit in response to pressurization of the loading unit;

a first valve for isolating the first bin from the loading unit on a selective basis;

a second valve for isolating the second bin from the loading unit on a selective basis;

a third valve for isolating the loading unit from the fluidized catalytic cracking unit on a selective basis;

means for placing the loading unit in fluid communication with a source of pressurized air;

a fourth valve for isolating the loading unit from the source of pressurized air on a selective basis; and

a controller, the controller being electrically coupled to respective actuators of the first, second, third, and fourth valves so that the controller can open and close said valves, and wherein the controller is programmed to open said third valve only after it fully closes said fourth valve.

33. (original) The system of claim 32, further comprising a manifold comprising the first and second valves.

34. (cancelled)

35. (currently amended) The system of claim 32, further comprising first and second hoses for coupling the respective first and second bins to the loading unit, wherein the first and second bins are at a location remote from the location of the loading unit.

36. (previously presented) The system of claim 32, wherein the loading unit comprises a dust collector and a transfer pot.

37. (currently amended) The system of claim 36, wherein said fluid communication means ~~places~~ is adapted to place said transfer pot in fluid communication with said pressurized air source, said fourth valve is adapted to isolate ~~isolates~~ the transfer pot from the pressurized air source on a selective basis, the dust collector is capable of maintaining a vacuum therein so that the first and second of the catalyst and/or additives can be drawn into the dust collector from the respective first and second bins by the vacuum, and the transfer pot is capable of being pressurized so that the first and second of the catalyst and/or additives can be injected into the

fluidized catalytic cracking unit in response to a pressure differential between the transfer pot and the fluidized catalytic cracking unit.

38. (previously presented) The system of claim 32 or 37, further comprising a vacuum producer for generating the vacuum within the loading unit.

39. (original) The system of claim 36, wherein the dust collector comprises a filter for collecting dust generated by transfer of the at least one of the catalyst and/or additives from the respective first and second bins and into the loading unit.

40. (previously presented) The system of claim 32 or 37, further comprising a volume chamber and moisture trap for drying air used to pressurize the loading unit.

41. (cancelled)

42. (previously presented) The system of claim 36 or 37, wherein:

the dust collector comprises a substantially cylindrical upper portion and an adjoining, substantially conical lower portion; and

the transfer pot comprises a substantially cylindrical upper portion adjoining the lower portion of the dust collector, and substantially conical lower portion adjoining the upper portion of the transfer pot.

43. (cancelled)

44. (previously presented) The system of claim 32 or 37, wherein the first bin and the loading unit are non-adjoining and the second bin and the loading unit are non-adjoining.

45. (previously presented) The system of claim 36 or 37, wherein the dust collector adjoins the transfer pot.

46. (cancelled)

47. (withdrawn) A process for introducing catalyst and/or additives into a fluidized catalytic cracking unit, comprising:

generating a vacuum within a loading unit;

drawing one of the catalyst and/or additives from a storage bin and into the loading unit in response to the vacuum;

pressurizing the loading unit; and

injecting the one of the catalyst and/or additives into the fluidized catalytic cracking unit in response to the pressurization of the loading unit.

48. (withdrawn) The process of claim 47, further comprising monitoring a weight of the one of the catalyst and/or additives drawn into the loading unit and stopping generation of the vacuum when the weight reaches a predetermined value.

49. (withdrawn) The process of claim 47, wherein generating a vacuum within a unit comprises initiating a flow of pressurized air through a vacuum producer in fluid communication with the loading unit.

50. (withdrawn) The process of claim 47, wherein injecting the one of the catalyst and/or additives into the fluidized catalytic cracking unit in response to the pressurization of the loading unit comprises injecting the one of the catalyst and/or additive into a regenerator of the fluidized catalytic cracking unit.

51. (withdrawn) The process of claim 47, wherein drawing one of the catalyst and/or additives from a storage bin and into the loading unit in response to the vacuum comprises opening a valve to place the storage bin in fluid communication with the loading unit.

52. (withdrawn) The process of claim 51, further comprising drawing another of the catalyst and/or additives from another of the storage bins and into the loading unit in response to the vacuum by opening another of the valves to place the another of the storage bins in fluid communication with the loading unit.

53. (withdrawn) The process of claim 47, wherein pressurizing the loading unit comprises opening a valve to place the loading unit in fluid communication with a source of pressurized air.

54. (withdrawn) The process of claim 47, wherein generating a vacuum within a unit and drawing one of the catalyst and/or additives from a storage bin and into the loading unit in response to the vacuum comprises generating the vacuum in a dust collector of the loading unit and drawing one of the catalyst and/or additives from a storage bin and into the dust collector in response to the vacuum.

55. (withdrawn) The process of claim 47, wherein pressurizing the loading unit and injecting the one of the catalyst and/or additives into the fluidized catalytic cracking unit in response to the pressurization of the loading unit comprises pressurizing a transfer pot of the loading unit and injecting the one of the catalyst and/or additives into the fluidized catalytic cracking unit from the transfer pot.

56. (withdrawn) A process for loading catalyst and/or additives into a fluidized catalytic cracking unit, comprising:

storing at least one of the catalyst and/or additives at a first location;

vacuuming the at least one of the catalyst and/or additives into a unit positioned at a second location; and

injecting the at least one of a catalyst and/or additives into the fluidized catalytic cracking unit from the loading unit.

57. (cancelled)

58. (previously presented) The system of claim 13 wherein the fifth and sixth inputs are timed by the controller so that the third valve opens only after the second valve fully closes.

59. (cancelled)

60. (New) A combination of a fluid catalytic cracking unit and a system for injecting catalyst and/or additive into said unit, the system comprising:

a dust collector in fluid communication with at least one storage bin, each bin holding catalyst and/or additive;

a vacuum producer in fluid communication with the dust collector so that the vacuum producer can generate a vacuum within the dust collector that can draw the catalyst and/or additive into the dust collector;

a transfer pot in fluid communication with the dust collector for receiving catalyst and/or additive from the dust collector, the transfer pot in fluid communication with the fluidized catalytic cracking unit and in fluid communication with a source of pressurized air; and

a plurality of load cells for measuring a weight of the transfer pot and any catalyst and/or additive drawn into the transfer pot from said bin or bins;

the transfer pot being capable of being pressurized so that the catalyst and/or additive can be transferred to the fluidized catalytic cracking unit in response to a pressure differential between the transfer pot and the fluidized catalytic cracking unit.

61. (New) The combination of claim 60 where at least one storage bin is at a location remote from the dust collector.

62. (New) The combination of claim 61 further comprising means for monitoring pressure in the transfer pot.

63. (New) The combination of claim 62 further comprising means for monitoring pressure in the regenerator of the fluid catalytic cracking unit, and means for determining a pressure differential between the transfer pot and the regenerator of the fluid catalytic cracking unit.

64. (New) The combination of claim 62 where the vacuum producer is in fluid communication with the source of pressurized air, and the injecting system further comprises:

a first valve for isolating the vacuum producer from the source of pressurized air on a selective basis;

a second valve for isolating the transfer pot from the source of pressurized air on a selective basis;

a third valve for isolating the transfer pot from the fluidized catalytic cracking unit on a selective basis;

a fourth valve for isolating the dust collector from the storage bin on a selective basis; and

a controller electrically coupled to the load cells and respective actuators of the first, second, third, and fourth valves for controlling the operation of the first, second, third, and fourth valves.

65. (New) A combination of a fluid catalytic cracking unit and a system for storing and loading catalyst and/or additive into the fluidized catalytic cracking unit, the system comprising (1) at least one storage bin for storing catalyst or additive, (2) a loading unit

positioned in a location remote from the location of the at least one storage bin, the loading unit being in fluid communication with the storage bin and the fluidized catalytic cracking unit on a selective basis, and (3) a plurality of load cells for measuring a weight of the loading unit and any catalyst and/or additive in the loading unit, wherein the loading unit is capable of being evacuated so that a resulting vacuum within the loading unit draws the at least one of the catalyst and/or additives from the storage bin, and the loading unit is capable of being pressurized so that the catalyst and/or additive can be transferred from the loading unit to the fluidized catalytic cracking unit in response to a pressure differential between the loading unit and the fluidized catalytic cracking unit.

66. (New) The combination of claim 65 further comprising means for monitoring pressure in the loading unit.

67. (New) The combination of claim 66 further comprising means for monitoring pressure in the regenerator of the fluid catalytic cracking unit, and means for determining a pressure differential between the loading unit and the regenerator of the fluid catalytic cracking unit.

68. (New) The combination of claim 66 wherein the loading unit comprises a dust collector and a transfer pot.

69. (New) A system for injecting catalyst and/or additive into a fluidized catalytic cracking unit, comprising:

a dust collector adapted to be in fluid communication with at least one storage bin holding one of the catalyst and/or additive;

a vacuum producer in fluid communication a source of pressurized air and in fluid communication with the dust collector so that the vacuum producer can generate a vacuum within the dust collector that draws catalyst and/or additive into the dust collector;

a transfer pot in fluid communication with the dust collector for receiving catalyst and/or additive from the dust collector, the transfer pot adapted to be in fluid communication with the fluidized catalytic cracking unit and with the source of pressurized air, the transfer pot being capable of being pressurized so that the catalyst and/or additive can be transferred to the fluidized catalytic cracking unit in response to a pressure differential between the transfer pot and the fluidized catalytic cracking unit;

a plurality of load cells for measuring a weight of the dust collector, the transfer pot, and any catalyst and/or additive drawn into the dust collector;

a first valve for isolating the vacuum producer from the source of pressurized air on a selective basis;

a second valve for isolating the transfer pot from the source of pressurized air on a selective basis;

a third valve for isolating the transfer pot from the fluidized catalytic cracking unit on a selective basis;

a fourth valve for isolating the dust collector from the storage bin on a selective basis; and

a controller electrically coupled to the load cells and respective actuators of the first, second, third, and fourth valves for controlling the operation of the first, second, third, and fourth valves.

70. (New) The system of claim 69 further comprising means for monitoring pressure in the transfer pot.